AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An image processing apparatus comprising:

an edge window setting unit for setting an edge window for detecting an edge of a workpiece;

an element setting unit for selectively setting a plurality of window elements in the one edge window set by said edge window setting unit, such that the window elements are capable of mutually overlapping in the width direction of the edge window;

an edge detection unit for scanning each of the window elements and obtaining edges for each window element; and

a calculation unit for obtaining edge related information from the edges detected by said edge detection unit and for calculating ~~maximum~~ width between the edges in a height direction in each of the window elements and for obtaining at least one of maximum width, minimum width, or average value in the width detected in each of said window elements,

wherein said edge window set by the edge window setting unit has a height that is equal to the height of each of the plurality of window elements.

2. (Original) An image processing apparatus as defined in claim 1, wherein said element setting unit sets the plurality of window elements based on a width of the window element which is set by a user.

3. (Original) An image processing apparatus as defined in claim 1, wherein said element

setting unit sets the plurality of window elements based on a distance between the adjacent window elements which is set by a user.

4. (Currently amended) A record medium including a program executable on an image processing apparatus, the program comprising instructions having:

a first function of setting an edge window for detecting an edge of a workpiece;

a second function of selectively setting a plurality of window elements in the one edge window set by said first function, such that the window elements are capable of mutually overlapping in the width direction of the edge window;

a third function of scanning each of the window elements and obtaining edges for each window element; and

a fourth function of obtaining edge related information from the edges detected in the third function and for calculating ~~maximum~~ width between the edges in a height direction in each of the window elements and for obtaining at least one of maximum width, minimum width, or average value in the width detected in each of said window elements,

wherein said edge window has a height that is equal to the height of each of the plurality of window elements.

5. (Currently amended) An image processing method comprising:

setting an edge window for detecting an edge of a workpiece;

selectively setting a plurality of window elements in the one edge window, such that the window elements are capable of mutually overlapping in the width direction of the edge window;

scanning each of the window elements and obtaining edges for each window element; and

obtaining edge related information from the edges detected and for calculating ~~maximum~~ width between the edges in a height direction in each of the window elements and obtaining at least one of maximum width, minimum width, or average value in the width detected in each of said window elements,

wherein said edge window has a height that is equal to the height of each of the plurality of window elements.

6. (Original) An image processing method as defined in claim 5, wherein said element setting step includes setting the plurality of window elements based on a width of the window element which is set by a user.

7. (Original) An image processing method as defined in claim 5, wherein said element setting step includes setting the plurality of window elements based on a distance between the adjacent window elements which is set arbitrarily by a user.

8. (Previously presented) The image processing apparatus of claim 1, wherein said plurality of window elements has a width and there is a distance between the beginning of each of the said window elements, wherein said width and said distance are assigned automatically inside said edge window by specifying the number of window elements by the user.

9. (Previously presented) The image processing apparatus of claim 1, wherein when said element setting unit sets the plurality of window elements inside said edge window, a setting is performed so that the window elements are always present in one end and the other end of the edge window.

10. (Previously presented) The image processing method of claim 5, wherein said plurality of window elements has a width and there is a distance between said window elements, wherein said width and said distance are assigned automatically inside said edge window by specifying the number of window elements by the user.

11. (Previously presented) The image processing method of claim 5, wherein when said element setting unit sets the plurality of window elements inside said edge window, a setting is performed so that the window elements are always present in one end and the other end of the edge window.

12. (Canceled)

13. (Previously presented) An image processing apparatus as defined in claim 1, wherein said element setting unit sets the number of window elements and width of each window element.

14. (Previously presented) An image processing apparatus as defined in claim 1, wherein said edge window comprises two opposing ends and the element setting unit arranges the window elements at both ends of the edge window.

15. (Currently amended) An image processing apparatus comprising:

an edge window setting unit for setting an edge window for detecting an edge of a workpiece;

an element setting unit for selectively setting a plurality of window elements in the one

edge window set by said edge window setting unit, wherein a user defines at least one of the number of window elements and the width of each of the window elements, and the height of the edge window is equal to the height of the plurality of window elements;

an edge detection unit for scanning each of the window elements and obtaining edges for each window element; and

a calculation unit for obtaining edge related information from the edges detected by said edge detection unit and for calculating ~~maximum~~ width between the edges in a height direction in each of the window elements, and for obtaining at least one of maximum width, minimum width, or average value in the width detected in each of said window elements.

16. (Previously presented) An image processing apparatus as defined in claim 15, wherein said at least one window element has a height equal to the height of the edge window set by said edge window setting unit.

17. (Previously presented) An image processing apparatus as defined in claim 15, wherein said element setting unit sets the number of window elements and width of each window element.

18. (Previously presented) An image processing apparatus as defined in claim 15, wherein said at least one window element is at least two window elements and the element setting unit sets the at least two window elements such that the at least two window elements are mutually overlapping in the width direction of the edge window.

19. (Previously presented) An image processing apparatus as defined in claim 15,

wherein said edge window comprises two opposing ends and the element setting unit arranges the window elements at both ends of the edge window.

20. (Currently amended) An image processing apparatus comprising:

an edge window setting unit for setting an edge window for detecting an edge of a workpiece;

an element setting unit for selectively setting a plurality of window elements in the one edge window set by said edge window setting unit, such that the window elements are capable of mutually overlapping in the width direction of the edge window;

an edge detection unit for scanning each of the window elements and obtaining edges for each window element; and

a calculation unit for obtaining an edge related information from the edges detected by said edge detection unit and for calculating ~~maximum~~ width between the edges in a height direction in each of the window elements and for obtaining at least one of maximum width, minimum width, or average value in the width detected in each of said window elements,

wherein a user selects a width of each window element, and the user selects a distance from a start coordinate of a first window element to a start coordinate for each additional window element.

21. (Previously presented) The image processing apparatus as defined in claim 20, wherein said element setting unit sets the plurality of window elements based on the distance between the start coordinates of adjacent window elements.

22. (Previously presented) The image processing apparatus of claim 1, wherein a separate maximum width is individually obtained for each of the window elements.

23. (Previously presented) The image processing apparatus of claim 22, wherein the overall maximum width from all of the separate maximum widths is obtained.